

Date: Thu, 24 Feb 94 04:30:52 PST  
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>  
Errors-To: Ham-Homebrew-Errors@UCSD.Edu  
Reply-To: Ham-Homebrew@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Homebrew Digest V94 #41  
To: Ham-Homebrew

Ham-Homebrew Digest                      Thu, 24 Feb 94                      Volume 94 : Issue    41

Today's Topics:

    Advice, please, re 12V Battery Supply in Shack  
    How about VHF MOSFET's for 2-meter amp? (3 msgs)  
    Looking for sources of ferrite rod  
    What test equipment do you use?  
    Where is Dan's Small Parts?

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>  
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Tue, 22 Feb 94 18:55:42 PST  
From: agate!howland.reston.ans.net!sol.ctr.columbia.edu!newsxfer.itd.umich.edu!  
nntp.cs.ubc.ca!mala.bc.ca!oneb!ham!emd@ames.arpa  
Subject: Advice, please, re 12V Battery Supply in Shack  
To: ham-homebrew@ucsd.edu

julian@bongo.tele.com (Julian Macassey) writes:

> In article <F9N3Hc1w165w@ham.almanac.bc.ca> emd@ham.almanac.bc.ca writes:  
> >

>    Battery stuff:

> >The question is the best way to keep the battery adequately charged  
> >without over-charging it - I'm not sure merely connecting a DC power  
> >supply to the battery is a very good answer.

> >

> >Suggestions as to the best method to both power the equipment AND keep  
> >the battery from deteriorating would be appreciated.

>

>  
> This whole subject was very well covered in a series of  
> articles in that evil cultist rag QST.  
>  
> See "Practical Battery-Back-Up Power fro Amateur Radio  
> Stations - Part 1, 2, 3." March, April, May 1990.  
>  
> Brian Kantor posted a good writeup on lead acid batteries on 28 May  
> 1992. I have a copy and will mail it to the original poster or anyone  
> else who wants a copy.  
>

Thanks for the material, Julian. Interesting and useful.

(posting this because e-mail to you bounced)

Tnx and 73, Bob.

Robert Smits	There is *no* idiotproof filter.
VE7EMD	Idiots are proof against anything!
Ladysmith B.C.	- Richard Chycoski, VE7CVS
e-mail: emd@ham.almanac.bc.ca	

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Date: Tue, 22 Feb 1994 21:52:24 GMT  
From: rit!isc-newsserver!ultb!jdc3538@cs.rochester.edu  
Subject: How about VHF MOSFET's for 2-meter amp?  
To: ham-homebrew@ucsd.edu

What are the advantages/disadvantages of RF power MOSFET's? From what the listing shows, they have more gain than bipolars. Are there any "gotchyas"? How does efficiency compare? They are listed for 28 or 50 volt supplies. How much power can you get at 12 volts? The 1994 ARRL handbook doesn't seem to cover any of this.

73...Jim  
N2VNO

-----  
Date: 23 Feb 1994 15:09:01 GMT  
From: elroy.jpl.nasa.gov!swrinde!cs.utexas.edu!howland.reston.ans.net!pipex!zaphod.crihan.fr!jussieu.fr!univ-lyon1.fr!elendir@ames.arpa  
Subject: How about VHF MOSFET's for 2-meter amp?  
To: ham-homebrew@ucsd.edu

J.D. Cronin (jdc3538@ultb.isc.rit.edu) wrote:

: What are the advantages/disadvantages of RF power MOSFET's? From what  
: the listing shows, they have more gain than bipolars. Are there any  
: "gotchyas"? How does efficiency compare? They are listed for 28 or  
: 50 volt supplies. How much power can you get at 12 volts? The 1994  
: ARRL handbook doesn't seem to cover any of this.

Well. The first advantage of a MOSFET is its high input impedance. It  
doesn't really suck much power from the previous stage. Their input  
impedance is essentially capacitive. They are more stable than bipolar.  
They exhibit only quadratic distortion, thus a push pull stage made up  
with MOSFET can be really linear.

MOSFET also tend to dissipate less power than BJT, and to have a higher  
bandwidth. Their output impedance varies less with frequency.

Vince.

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Date: 23 Feb 1994 16:03:49 GMT  
From: elroy.jpl.nasa.gov!swrinde!gatech!usenet.ins.cwru.edu!lerc.nasa.gov!  
news.larc.nasa.gov!grissom.larc.nasa.gov!kludge@ames.arpa  
Subject: How about VHF MOSFET's for 2-meter amp?  
To: ham-homebrew@ucsd.edu

In article <1994Feb22.215224.22050@ulb.isc.rit.edu> jdc3538@ulb.isc.rit.edu  
(J.D. Cronin) writes:

>  
>What are the advantages/disadvantages of RF power MOSFET's? From what  
>the listing shows, they have more gain than bipolars. Are there any  
>"gotchyas"? How does efficiency compare? They are listed for 28 or  
>50 volt supplies. How much power can you get at 12 volts? The 1994  
>ARRL handbook doesn't seem to cover any of this.

I've tried using these for transmitter finals and found them pretty much  
impractical due to the static sensitivity. One thunderstorm a few miles  
away, and you just bought yourself a new set. MOVs, gas tubes, and other  
protection will help, but they aren't the solution.

--scott

(On the other hand, I once had an antenna take a direct lightning hit  
a few years ago. Most of it went through the arrestor, but it shattered  
one of the two 833 finals and the plate tuning cap arced over and hasn't  
been the same since. I was off the air for almost half an hour.)

--

"C'est un Nagra. C'est suisse, et tres, tres precis."

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Date: 24 Feb 94 04:12:13 GMT  
From: nprdc!ihnp4.ucsd.edu!swrinde!cs.utexas.edu!usc!yeshua.marcam.com!  
zip.eecs.umich.edu!umn.edu!mr.net!usenet@network.ucsd.edu  
Subject: Looking for sources of ferrite rod  
To: ham-homebrew@ucsd.edu

I am looking for ferrite rod for winding antennas, making inductors, etc.

Since this is for a production quantity application, I would prefer a reliable source who might stock various sizes and shapes of ferrite rods, cores, and so forth.

Anyone out there in the ether happen to have a name and number of a supplier of such items?

Please e-mail replies. If people are interested in what I find out, I will post a summary.

Thanks in advance,

Paul J. Anderson - NORIK  
Stillwater, MN  
pja@wrmed.com  
wrmed@mr.net  
n0rik@wb0gdb.stp.mn.usa

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Date: Wed, 23 Feb 1994 11:25:36 GMT  
From: elroy.jpl.nasa.gov!swrinde!gatech!usenet.ins.cwru.edu!lerc.nasa.gov!  
magnus.acs.ohio-state.edu!csn!col.hp.com!news.dtc.hp.com!hplextra!hplb!hpwin052!  
hpqmoea!dstock@ames.arpa  
Subject: What test equipment do you use?  
To: ham-homebrew@ucsd.edu

Using pulse generators with scopes, or the published DIY versions is all OK, but the thing I got has over 1 GHz of bandwidth, and can discriminate very small distances (millimetre). At 35 quid it was cheaper than you would likely find either a scope or a pulse gen at a rally or at a surplus store.

I've also got most (but not all) of a 12 GHz combined sampling scope and TDR, but see no real use in the shack for it. Bought a scope frame with this plugged into it, for less than the going rate for the frame alone. TDRs really seem to confuse people... maybe the seller didn't realise the frame was more useful and valuable than the plug-in?

I use TDRs professionally to debug mismatches etc, and to develop broadband transformers (there is rather a good set of HP applications notes...) but nowadays I more often use a network analyser with a mathematically computed TDR function when I'd like to see the time response rather than mag&phase versus freq.

Everyone seems to know the TEK scope families around here, but no-one seems to know the old HP180 family, so I keep picking up odd bits at absolute bargain prices, and I have a bit of an inside track on knowing my way around them. Typically a 50MHz dual trace dual timebase with a reasonably bright CRT capable of very fine focus for under \$100 ! The only problem is that the trigger circuit requires canny adjustment to get it to work at its best.

Cheers

David

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Date: 24 Feb 94 00:44:52 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Where is Dan's Small Parts?  
To: ham-homebrew@ucsd.edu

I have been told that Dan's Small Parts etc is a good source for homebrewing, but I have two addresses for him. One I got from Homebrew Digest, v93, #8, which is in Montana. The other is from last November's Popular Electronics article on parts suppliers, which lists him as KA7QJY Components in Wyoming (Looked up call and found it was Dan Stevig). Does anyone know which of these addresses is current?

Also, I understand there is a list of parts suppliers somewhere on the net. Can someone point me to it?

Thanks,

Mike, KK6GM

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End of Ham-Homebrew Digest V94 #41  
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